

Atty. Dkt. No. 017399-0202

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Gernot VON HAAS
Title: METHOD AND APPARATUS FOR THE MANUFACTURE
OF CHIP BOARDS AND FIBER BOARDS
Appl. No.: 10/047,984
Filing Date: 1/17/2002
Examiner: Monica A. Huson
Art Unit: 1732
Confirmation Number: 3228

DECLARATION OF FRIEDRICH B. BIELFELDT UNDER 37 C.F.R. § 1.132

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

I, Friedrich B. Bielfeldt, a citizen of the Federal Republic of Germany, residing at Rauchäckerstr. 1, D-82396 Pähl a. A., Germany, declare as follows:

1. I graduated from Technical University Hamburg with an educational degree mechanical engineering diploma.
2. From 1979, I worked for J. Dieffenbacher GmbH & Co, later known as Dieffenbacher GmbH + Co. KG, as a sales and technical director. Since 1991, I have worked in the technical Department as a consultant for design and sales.
3. I am a named inventor on more than 50 issued U.S. patents. Most of these patents relate to production line apparatuses and methods, including the production of wood

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building materials such as boards. The first of my patents was filed more than twenty years ago, and the most recent issued a few years ago. In other countries in the world, I am the inventor of more than 100 patents and patent applications relating to production line apparatuses and methods. My last patent application for Dieffenbacher GmbH + Co. KG has been filed in Germany 2002.

4. I am familiar with literature on wood processing apparatuses and methods in general and in particular composite wood products manufacturing apparatuses and methods. I am an expert in the field of composite wood products, and I understand how a person of ordinary skill in the field of composite wood products would understand the terms and concepts disclosed in the literature, including patent literature.

5. I have reviewed the Office Action dated December 29, 2006 and the patent references cited in the Office Action, including U.S. Patent No. 5,538,676 ("Bielfeldt") and U.S. Patent No. 3,915,075 ("Luke et al.").

6. One of ordinary skill in the art would not have looked to the teachings of Luke et al. when considering the prior art for a method of continuous manufacture of wood material boards because of the differences between the apparatus of Luke et al. and a process for the continuous manufacture of wood material boards, such as the process of Bielfeldt.

7. In the apparatus of Luke et al., a plastic rod is extruded from a die, conducted through a tube or a wire-mesh belt made of a high thermal conductivity material, and introduced between a belt and a tape that wraps around the rod. The apparatus disclosed by Luke et al. is for making plastic rods, such as a rod for tobacco-smoke filtering material, not wood material boards. Such an apparatus would involve different concerns and materials than an apparatus that is used to make wood material boards. For instance, the rod made by the apparatus of Luke et al. is a synthetic plastic, foam material. In contrast, Bielfeldt's process uses natural wood chips, which are called large-surface oriented wood particles. Wood particles have different properties and involve different concerns than synthetic plastic materials and synthetic foam materials (such as cellulose acetate).

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8. Luke et al. discloses that the tube or wire-mesh belt made of a high thermal conductivity material can be made of copper or aluminum. However, one of ordinary skill in the art would understand that a copper wire-mesh belt, while having a relatively high thermal conductivity, would lack the hardness necessary for use in a double belt press, such as the one disclosed by Bielfeldt, in which the wire-mesh belt would be pressed between the press platens and subjected to the force exerted by the press platens. A copper wire-mesh belt of Luke et al. would not be able to withstand this environment because of its low hardness. Furthermore, Luke et al. discloses that the copper wire-mesh belt is used for the purpose of cooling the material made by the apparatus of Luke et al., which is opposite to the purpose of a support belt in a process such as Bielfeldt's, which is instead used for heating the wood board material.

9. Luke et al. discloses that after the rod leaves the cooling tube or wire-mesh belt, a belt made of rubber or rubber and plastic grips and entrains the rod without damaging the rod. However, in a wood board production apparatus such as Bielfeldt's, a belt is meant to support wood material while it is being pressed and deformed between platens. Therefore, the belt of Luke et al. is used for a different purpose, i.e. support without damage, than a belt in a wood board manufacturing process, i.e. support with deformation, such as Bielfeldt's.

10. Because of the widely different use for the apparatus of Luke et al., one of ordinary skill in the art would not look to the teachings of Luke et al. when considering technological solutions for the continuous manufacture of wood material boards.

11. Furthermore, the steel belts 6 in the apparatus of Bielfeldt are heated, because heat and pressure are necessary to form the particleboard 18. As described in Bielfeldt, column 4, lines 34ff, the press ram 12 and the press table 13 have steel bands 6 and 14 running around them via drive rollers 15 and deflecting rollers 16. The heated press platens (not shown) are applied to the sides of the press ram 12 and the press table 13 facing the press gap 17, therefore the steel belts come into direct contact with the heated press platens and are heated to a temperature usually over 100° C, which depends on the used material in the particle mat 5. The used term "preheating" in the whole Bielfeldt citation means that it is intended to insert a preheated particle mat 5 into the continuously operating press 1 which

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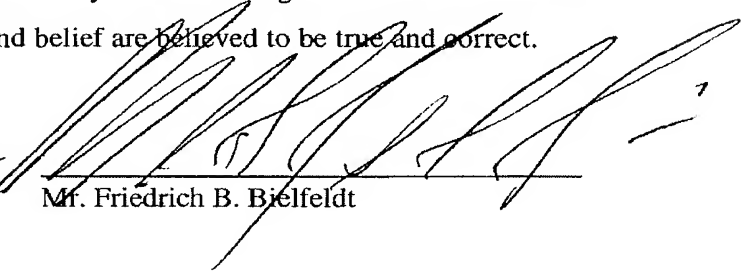
heats the preheated particle mat 5 to a higher level of temperature. Therefore, the steel belts 6 and 14 of Bielfeldt would not be at an ambient temperature of the environment surrounding the apparatus of Bielfeldt if they have returned to reenter the continuously operating press 1 between the deflecting rollers 16.

12. I declare under penalty of perjury under the laws of the United States of America that all the statements made herein of my own knowledge are true and correct and that all statements made on information and belief are believed to be true and correct.

Executed on:

11.29.2004

Date


Mr. Friedrich B. Bielfeldt